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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,278	07/14/2000	Scott R Ferguson	10001414-1	6486

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EXAMINER
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TSAI, CAROL S W

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/616,278	FERGUSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Carol S Tsai	2857	<i>AW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-22 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 8 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, lines 1-2, it is not understandable what is meant by “wherein the step of constructing a logic analyzer trigger sequence”, since “constructing a logic analyzer trigger sequence” is not defined in claim 1.

### ***Claim Objections***

3. Claims 6, 7, and 23-26 are objected to because of the following informalities:

In claim 7, line 1, “claim 5” should read - - claim 5 - -.

In claim 23, line 10, “structures; and” should read - - structures; - -.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 6,158,031 to Mack et al.

Mack et al. disclose a method for configuring a trigger sequence in a signal measurement system having a graphical user interface, and memory, the method comprising the steps of: a) storing a plurality of protocol definition text files in memory (see col. 2, line 50 to col. 3, line 15; col. 3, lines 51-55; col. 4, lines 22-42; and col. 5, lines 26-33); b) parsing said protocol definition text files into a plurality of data structures (see col. 3, lines 16-29 and col. 6, lines 40-57); c) forming a plurality of event definitions from said plurality of data structures and d) constructing a series of trigger primitives from said event definition (see col. 7, lines 32-62 and col. 8, line 20 to col. 9, line 58).

As to claim 2, Mack et al. also disclose a) constructing a bit sequence from said event definition; and b) constructing a series of trigger primitives from said bit sequence (see col. 6, lines 8-18; col. 7, lines 45-46; and col. 8, line 63 to col. 9, line 5).

As to claim 5, Mack et al. also disclose each of said data structures comprising protocol information including at least a field name, a field size, a field type and a favorite data format for display (see Fig. 4 and col. 8, lines 20-39).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mack et al. in view of U. S. Patent No. 5,313,622 to Truchard et al.

As noted above, with respect to claims 3 and 4, Rivoir discloses the claimed invention, except for optimizing said bit sequence to identify and count multiple consecutive occurrences of identical bit patterns.

Truchard et al. teach optimizing said bit sequence to identify and count multiple consecutive occurrences of identical bit patterns (see col. 6, line 35 to col. 7, line 47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mack et al.'s method to include optimizing said bit sequence to identify and count multiple consecutive occurrences of identical bit patterns, as taught by Truchard et al., in order to provide the match indication upon an occurrence of a match (see Truchard et al., Abstract, lines 18-19).

8. Claims 6, 7, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mack et al. in view of U. S. Publication 2002/0188888 to Rivoir.

As noted above, with respect to claims 6 and 7, Mack et al. disclose the claimed invention, except for each of said plurality of event definitions comprising two blocks of data.

Rivoir teaches each of said plurality of event definitions comprising two blocks of data (see paragraph 0042).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mack et al.'s method to include each of said plurality of event definitions comprising two blocks of data, as taught by Rivoir, in order to determine that the DUT is operating improperly if there are "don't care" states in the signal period.

As to claim 23, Mack et al. also disclose a method for configuring a trigger sequence in a signal measurement system having a graphical user interface, and memory, the method comprising the steps of: a) storing a plurality of protocol definition text files in memory (see col. 2, line 50 to col. 3, line 15; col. 3, lines 51-55; col. 4, lines 22-42; and col. 5, lines 26-33); b) parsing said protocol definition text files into a plurality of data structures (see col. 3, lines 16-29 and col. 6, lines 40-57), wherein each of said data structures comprises protocol information including at least a field name, a field size, a field type and a favorite data format for display (see Fig. 4 and col. 8, lines 20-39); c) forming a plurality of event definitions from said plurality of data structures and d) constructing a bit sequence from said event definition (see col. 7, lines 32-62 and col. 8, line 20 to col. 9, line 58).

Mack et al. do not disclose e) optimizing said bit sequence to identify and count multiple consecutive occurrences of identical bit patterns and f) constructing a series of trigger primitives

from solo bit sequence, wherein any identification of multiple consecutive occurrences of identical bit patterns by said optimizing results in a single trigger primitive for said multiple occurrence.

Truchard et al. teach e) optimizing said bit sequence to identify and count multiple consecutive occurrences of identical bit patterns and f) constructing a series of trigger primitives from solo bit sequence, wherein any identification of multiple consecutive occurrences of identical bit patterns by said optimizing results in a single trigger primitive for said multiple occurrence (see col. 6, line 35 to col. 7, line 47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mack et al.'s method to include e) optimizing said bit sequence to identify and count multiple consecutive occurrences of identical bit patterns and f) constructing a series of trigger primitives from solo bit sequence, wherein any identification of multiple consecutive occurrences of identical bit patterns by said optimizing results in a single trigger primitive for said multiple occurrence, as taught by Truchard et al., in order to provide the match indication upon an occurrence of a match (see Truchard et al., Abstract, lines 18-19).

9. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mack et al. in view of Truchard et al. as applied to claim 23 above, and further in view of U. S. Patent No. Publication 2002/0188888 to Rivoir.

As noted above, Mack et al. in combination with Truchard et al. teach all the features of the claimed invention, but do not disclose each of said plurality of event definitions comprising two blocks of data.

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Rivoir teaches each of said plurality of event definitions comprising two blocks of data (see paragraph 0042).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mack et al. in combination with Truchard et al.'s method to include each of said plurality of event definitions comprising two blocks of data, as taught by Rivoir, in order to determine that the DUT is operating improperly if there are "don't care" states in the signal period.

***Allowable Subject Matter***

10. Claims 8 and 26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 9-22 are allowed.

12. The following is a statement of reasons for the indication of allowable subject matter:

U. S. Patent No. 6,158,031 to Mack et al. is the reference closest to the claimed invention. Mack et al. disclose a method for configuring a trigger sequence in a signal measurement system having a graphical user interface, and memory, the method comprising the steps of: a) storing a plurality of protocol definition text files in memory; b) parsing said protocol definition text files into a plurality of data structures; c) forming a plurality of event definitions from said plurality of data structures; and g) constructing a series of trigger primitives from said event definition. However, Mack et al. do not teach d) graphically representing selectable protocol layer icons and a protocol profile window; e) displaying protocol field information



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corresponding to said layer of protocol information in response to graphical selection of one of said graphically selectable protocol layer icons, wherein said protocol field information is comprised of a least one user editable field; and f) generating a bit sequence in response to operator input of data in at least one of said user editable fields; and including all of the other limitations in the respective independent claims.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thakkar discloses a protocol library providing the ability to allow protocols to be decoded or encoded by decoupling software code generation for decoding and encoding from specific protocols.

Beck et al. disclose system and method for manipulating relationships among signals and buses of a signal measurement system on a graphical user interface.

Beck et al. disclose a logic analyzer integrating the capabilities of both textual and graphical description into a common environment, so that each can be used as needed, and in conjunction with the other.

Sajdak et al. disclose a system for enabling a user to specify one or more trigger conditions by graphically creating a pictorial representation of the trigger conditions.

Samuels discloses an automatic save and recall system and method for use in signal

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measurement systems that acquire and store signal data in accordance with a trigger specification, including generally a trigger definition and trigger control parameters ("trigger controls").

Alexander discloses an apparatus and method for providing an end-user operator with the ability to assign temporary control of a set of one or more operator-specified instrument control operations to one, single-action switch on a signal measurement system front panel.

### ***Contact Information***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

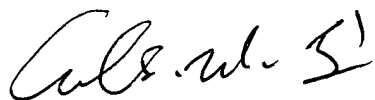
In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the

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examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

A handwritten signature in black ink, appearing to read "Carol S. W. Tsai".

Carol S. W. Tsai  
Patent Examiner  
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03/19/04